

SEQUENCE LISTING

<110> Chew, Anne
 Denton, R. Rex
 Bieglecki, Karyn M
 Nandabalan, Krishnan
 Stephens, J. Claiborne

<120> HAPLOTYPES OF THE TNFRSF11B GENE

<130> TNFRSF11B_MWH-0001US (CIP)

<140> TBA
 <141> 2002-01-09

<150> PCT/US00/18803
 <151> 2000-07-10

<160> 94

<170> PatentIn version 3.1

<210> 1
 <211> 11408
 <212> DNA
 <213> Homo sapiens

<220>
 <221> allele
 <222> (504)..(504)
 <223> PS1: polymorphic base G or T

<220>
 <221> allele
 <222> (717)..(717)
 <223> PS2: polymorphic base C or T

<220>
 <221> allele
 <222> (744)..(744)
 <223> PS3: polymorphic base G or T

<220>
 <221> allele
 <222> (778)..(778)
 <223> PS4: polymorphic base T or C

<220>
 <221> allele
 <222> (1009)..(1009)
 <223> PS5: polymorphic base G or C

<220>
 <221> allele
 <222> (1045)..(1045)
 <223> PS6: polymorphic base C or T

<220>
 <221> allele
 <222> (1122)..(1122)
 <223> PS7: polymorphic base G or A

 <220>
 <221> allele
 <222> (1218)..(1218)
 <223> PS8: polymorphic base C or A

 <220>
 <221> misc_feature
 <222> (1501)..(1550)
 <223> Sequence undetermined between contigs

 <220>
 <221> allele
 <222> (2014)..(2014)
 <223> PS9: polymorphic base C or T

 <220>
 <221> allele
 <222> (2177)..(2177)
 <223> PS10: polymorphic base T or C

 <220>
 <221> allele
 <222> (5906)..(5906)
 <223> PS11: polymorphic base T or C

 <220>
 <221> allele
 <222> (6010)..(6010)
 <223> PS12: polymorphic base C or T

 <220>
 <221> allele
 <222> (8110)..(8110)
 <223> PS13: polymorphic base G or A

 <220>
 <221> allele
 <222> (8333)..(8333)
 <223> PS14: polymorphic base C or T

 <220>
 <221> allele
 <222> (8354)..(8354)
 <223> PS15: polymorphic base A or G

 <220>
 <221> allele
 <222> (8402)..(8402)
 <223> PS16: polymorphic base A or G

 <220>

<221> allele
 <222> (8459)..(8459)
 <223> PS17: polymorphic base A or C

<220>
 <221> allele
 <222> (10203)..(10203)
 <223> PS18: polymorphic base G or

<220>
 <221> allele
 <222> (10512)..(10512)
 <223> PS19: polymorphic base T or C

<400> 1
 acagcgaacc ctagagcaaa gtgccaaact tctgtcgata gcttgaggct agtggaaaga 60
 cctcgaggag gctactccag aagttcagcg cgtaggaagc tccgatacca atagcccttt 120
 gatgatgggt gggttgggtga agggaaacagt gctccgcaag gttatccctg ccccaggcag 180
 tccaattttt actctgcaga ttctctcttg ctctaactac cccagataac aaggagtga 240
 tgcagaatag cacgggcttt agggccaatc agacattagt tagaaaaatt cctactacat 300
 ggttttatgta aacttgaaga tgaatgattg cgaactcccc gaaaagggtc cagacaatgc 360
 catgcataaa gagggggcct gtaatttgag gtttcagaac ccgaagtga ggggtcaggc 420
 agccgggtac ggcggaact cacagctttc gccagcgag aggacaaagg tctgggacac 480
 actccaactg cgtccggatc ttgkctggat cggactctca ggggtggagga gacacaagca 540
 cagcagctgc ccagcgtgtg cccagccctc ccaccgctgg tcccggctgc caggaggctg 600
 gccgctggcg ggaagggggc gggaaacctc agagccccgc ggagacagca gccgccttgt 660
 tcctcagccc ggtggctttt ttttcccctg ctctcccagg ggacagacac caccgcycca 720
 cccctcacgc cccacctccc tggkkggatcc tttccgcccc agccctgaaa gcgttaaycc 780
 tggagctttc tgcacacccc ccgaccgctc ccgcccgaagc ttcctaaaaa agaaagggtgc 840
 aaagtgttgg ccaggataga aaaatgactg atcaaaggca ggcgatactt cctgttgccg 900
 ggacgctata tataacgtga tgagcgcacg ggctgcggag acgcaccgga gcgctcgccc 960
 agccgcgcgc tccaagcccc tgaggtttcc ggggaccaca atgaacaast tgctgtgctg 1020
 cgcgctcgtg gtaagtcctt gggcyagccg acgggtgccc ggcgccctggg gaggctgctg 1080
 ccacctggtc tcccaacctc ccagcggacc ggcggggaga argctccact cgctccctcc 1140
 caggagaggc ttgggggttag gctggagcag gaaaccgctt tcaagttatg ccatgcttcc 1200
 cctaggggtg cctttttamgc tgcaaagtcc ctgctgactt tatggaagac agcaagagag 1260
 agacagacag cgagagagag ggagagagag agagagagaa acttgtttga aagttttagt 1320
 cattaacctt ctgtcttcat ctcagaatat taacgccctc atgtagtcca tactatcttt 1380
 gcttaatgaa cttgaacttt tattattagt ggcaaagaag tgggtccctta gattcagagt 1440
 aagttggaag aagacgttag tcttctttaa accattataa ttagaatatg acatgataga 1500
 NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN caggactttg 1560
 agtcaaataga tactgttgca cataagaaca aacctatttt catgctaaga tgatgccact 1620
 gtgttccctt ctctctctag tttctggaca tctccattaa gtggaccacc caggaaacgt 1680
 ttcctccaaa gtaccttcat tatgacgaag aaacctctca tcagctgttg tgtgacaaat 1740
 gtctccttg tacctacctt aaacaacact gtacagcaaa gtggaagacc gtgtgcgccc 1800
 cttgccctga ccactactac acagacagct ggcacaccag tgacgagtgt ctatactgca 1860
 gccccgtgtg caaggagctg cagtacgtca agcaggagtg caatcgcacc cacaaccgcg 1920
 tgtgcgaatg caaggaaggc cgctaccttg agatagagtt ctgcttgaaa cataggagct 1980
 gccctccttg atttgagtg gtgcaagctg gtaygtgtca atgtgcagca aaattaatta 2040
 ggatcatgca aagtcagata gttgtgacag tttaggagaa cacttttgtt ctgatgacat 2100
 tataggatag caaattgcaa aggtaatgaa acctgccagg taggtactat gtgtctggag 2160
 tgcttccaaa ggaccaytgc tcagaggaat actttgccac tacagggcaa tttaatgaca 2220
 aatctcaaat gcagcaaatt attctctcat gagatgcatg atggtttttt tttttttttt 2280
 taaagaaaca aactcaagtt gcactattga tagttgatct atacctctat atttcacttc 2340
 agcatggaca ccttcaaact gcagcacttt ttgacaaaca tcagaaatgt taatttatac 2400
 caagagagta attatgctca tattaatgag actctggagt gctaacaata agcagttata 2460
 attaattatg taaaaaatga gaatggtgag ggggaattgca tttcattatt aaaaacaagg 2520

ctagtctctc	cttttagcatg	ggagctgagt	gtttgggagg	gtaaggacta	tagcagaatc	2580
tcttcaatga	gcttattctt	tatcttagac	aaaacagatt	gtcaagccaa	gagcaagcac	2640
ttgcctataa	accaagtgt	ttctcttttg	cattttgaac	agcattggtc	agggctcatg	2700
tgtattgaat	cttttaaacc	agtaacccac	gttttttttc	tgccacattt	gcgaagcttc	2760
agtgcagcct	ataacttttc	atagcttgag	aaaattaaga	gtatccactt	acttagatgg	2820
aagaagtaat	cagtatagat	tctgatgact	cagtttgaag	cagtgtttct	caactgaagc	2880
cctgctgata	ttttaagaaa	tatctggatt	cctaggctgg	actccttttt	gtgggcagct	2940
gtcctgcgca	ttgtagaatt	ttggcagcac	ccctggactc	tagccactag	ataccaatag	3000
cagtccttcc	cccatgtgac	agccaaaaat	gtcttcagac	actgtcaaat	gtcgccaggt	3060
ggcaaaatca	ctcctgggtg	agaacagggg	catcaatgct	aagtatctgt	aactatttta	3120
actctcaaaa	cttgtgatat	acaaagtcta	aattattaga	cgaccaatac	tttaggttta	3180
aaggcataca	aatgaaacat	tcaaaaatca	aaatctattc	tgtttctcaa	atagtgaatc	3240
ttataaaatt	aatcacagaa	gatgcaaatt	gcatacagag	cccttaaaat	tcctcttcgt	3300
atgagtattt	gagggaggaa	ttgggtgatag	ttcctacttt	ctattggatg	gtactttgag	3360
actcaaaagc	taagctaagt	tgtgtgtgtg	tcaggggtgcg	gggtgtggaa	tcccatcaga	3420
taaaagcaaa	tccatgtaat	tcattcagta	agttgtatat	gtagaaaaat	gaaaagtggg	3480
ctatgcagct	tggaaactag	agaattttga	aaaataatgg	aatcacaaag	gatctttctt	3540
aaataagtaa	gaaaatctgt	ttgtagaatg	aagcaagcag	gcagccagaa	gactcagaac	3600
aaaagtacac	attttactct	gtgtacactg	gcagcacagt	gggatttatt	tacctctccc	3660
tccctaaaaa	cccacacagc	ggttcctctt	gggaaataag	aggtttccag	cccaaagaga	3720
aggaaagact	atgtggtggt	actctaaaaa	gtatttaata	accgttttgt	tgttgctggt	3780
gctgttttga	aatcagattg	tctcctctcc	atattttatt	tacttcattc	tgttaattcc	3840
tgtggaatta	cttagagcaa	gcatagtgaa	ttctcaactg	taaagccaaa	tttctccatc	3900
attataattt	cacattttgc	ctggcaggtt	ataattttta	tatttccact	gatagtaata	3960
aggtaaaatc	attacttaga	tggatagatc	tttttcataa	aaagtaccat	cagttataga	4020
gggaagtcac	gttcattgtt	aggaaggtca	ttagataaag	cttctgaata	tattatgaaa	4080
cattagttct	gtcattctta	gattcttttt	gttaaataac	tttaaaagct	aacttaccta	4140
aaagaaatat	ctgacacata	tgaacttctc	attaggatgc	aggagaagac	ccaagccaca	4200
gatatgtatc	tgaagaatga	acaagattct	taggcccggc	acggtggctc	acatctgtaa	4260
tctcaagagt	ttgagaggct	aaggcgggca	gatcacctga	ggtcaggagt	tcaagaccag	4320
cctggccaac	atgatgaaac	cctgcctcta	ctaaaaatac	aaaaattagc	agggcatggt	4380
ggtgcacatg	tgcaacccta	gctactcagg	aggctgagac	aggagaatct	cttgaaccct	4440
cgaggcggag	gttgtggtga	gctgagatcc	ctctactgca	ctccagcctg	ggtgacagag	4500
atgagactcc	gtccctgccg	ccgccccccg	cttccccccc	aaaaagattc	ttcttcatgc	4560
agaacatacg	gcagtcaaca	aaggagagacc	tgggtccagg	tgtccaagtc	acttatttcg	4620
agtaaattag	caatgaaaga	atgccatgga	atccctgccc	aaatacctct	gcttatgata	4680
ttgtagaatt	tgatatagag	ttgtatccca	tttaaggagt	aggatgtagt	aggaaagtac	4740
taaaaacaaa	cacacaaaca	gaaaaccctc	tttgctttgt	aagggtggtc	ctaagataat	4800
gtcagtgcaa	tgctggaaat	aatattttaat	atgtgaagg	tttaggctgt	gttttcccct	4860
cctgttcttt	ttttctgcca	gccctttgtc	atttttgcag	gtcaatgaat	catgtagaaa	4920
gagacaggag	atgaaactag	aaccagtcca	ttttgcccct	ttttttattt	tctggttttg	4980
gtaaaagata	caatgaggta	ggagggttgag	atttataaat	gaagtttaat	aagtttctgt	5040
agctttgatt	tttctctttc	atatttggtta	tcttgcataa	gccagaattg	gcctgtaaaa	5100
tctacatatg	gatattgaag	tctaaatctg	ttcaactagc	ttacactaga	tggagatatt	5160
ttcatattca	gatacactgg	aatgtatgat	ctagccatgc	gtaatatagt	caagtgtttg	5220
aagggtattta	tttttaatat	cgtcttttagt	tgtggactgg	ttcaagtttt	tctgccaatg	5280
atttcttcaa	atttatcaaa	tatttttcca	tcatgaagta	aaatgccctt	gcagtcaccc	5340
ttcctgaagt	ttgaacgact	ctgctgtttt	aaacagttta	agcaaatggt	atatcatctt	5400
ccgtttacta	tgtagcttaa	ctgcaggctt	acgcttttga	gtcagcggcc	aactttattg	5460
ccaccttcaa	aagtttatta	taatgttgta	aatttttact	tctcaagggt	agcatactta	5520
ggagttgctt	cacaattagg	attcaggaaa	gaaagaactt	cagtaggaac	tgattggaat	5580
ttaatgatgc	agcattcaat	gggtactaat	ttcaaagaat	gatattacag	cagacacaca	5640
gcagttatct	tgattttcta	ggaataattg	tatgaagaat	atggctgaca	acacggcctt	5700
actgccactc	agcggagggt	ggactaatga	acaccctacc	cttctttcct	ttcctctcac	5760
atttcatgag	cgtttttag	gtaacgagaa	aattgacttg	catttgcatt	acaaggagga	5820
gaaactggca	aaggggatga	tgggtggaagt	tttgttctgt	ctaatagaat	gaaaaatgaa	5880
aatgctagag	ttttgtgcaa	cataayagta	gcagtaaaaa	ccaagtgaat	agtctttcca	5940

aaactgtggt	aagagggcat	ctgctgggaa	acgatttgag	gagaagggtac	taaattgctt	6000
ggtattttcty	gtaggaaccc	cagagcgaaa	tacagtttgc	aaaagatgtc	cagatggggt	6060
cttctcaaat	gagacgtcat	ctaaagcacc	ctgtagaaaa	cacacaaatt	gcagtgtctt	6120
tggctctcctg	ctaactcaga	aaggaaatgc	aacacacgac	aacatatgtt	ccggaaacag	6180
tgaatcaact	caaaaatgtg	gaataggtaa	ttacattcca	aaatacgtct	ttgtacgatt	6240
ttgtagtatac	atctctctct	ctgagttgaa	cacaaggcct	ccagccacat	tcttgggtcaa	6300
acttacattt	tccctttctt	gaatcttaac	cagctaaggc	tactctcgat	gcattactgc	6360
taaagctacc	actcagaatc	tctcaaaaac	tcatcttctc	acagataaca	cctcaaagct	6420
tgatttttctc	tccctttcaca	ctgaaatcaa	atcttgccca	taggcaaagg	gcagtgtcaa	6480
gtttgcccact	gagatgaaat	taggagagtc	caaactgtag	aattcacgtt	gtgtgttatt	6540
actttcacga	atgtctgtat	tattaactaa	agtatatatt	ggcaactaag	aagcaaagtg	6600
atataaacat	gatgacaaat	taggccaggc	atgggtggctt	actcctataa	tcccaacatt	6660
ttgggggggccc	aaggtaggca	gactacttga	ggtcaggatt	tcaagaccag	cctgaccaac	6720
atgggtgaaac	cttgtctcta	ctaaaaatac	aaaaattagc	tgggcatggt	agcaggcact	6780
tctagtacca	gctactcagg	gctgaggcag	gagaatcgct	tgaaccacag	agatggagggt	6840
tgcagtgagc	tgagattgta	ccactgcact	ccagtctggg	caacagagca	agatttcac	6900
acacacacac	acacacacac	acacacacac	attagaaatg	tgtacttggc	tttgttacct	6960
atgggtattag	tgcactctatt	gcatggaact	tccaagctac	tctgggtgtg	ttaagctctt	7020
cattgggttac	aggctcactag	tattaagttc	aggttattcg	gatgcattcc	acggtagtga	7080
tgacaattca	tcaggctagt	gtgtgtgttc	accttgtcac	tcccaccact	agactaatct	7140
cagaccttca	ctcaaagaca	cattacacta	aagatgattt	gcttttttgt	gtttaatcaa	7200
gcaatgggtat	aaaccagctt	gactctcccc	aaacagtttt	tcgtactaca	aagaagttta	7260
tgaagcagag	aaatgtgaat	tgatatatat	atgagattct	aaccacagtc	cagcattgtt	7320
tcattgtgta	attgaaatca	tagacaagcc	attttagcct	ttgctttctt	atctaaaaaa	7380
aaaaaaaaaa	aatgaagga	aggggtatta	aaaggagtga	tcaaatttta	acattctctt	7440
taattaattc	atttttaatt	ttactttttt	tcatttattg	tgcacttact	atgtgggtact	7500
gtgctataga	ggctttaaca	tttataaaaa	cactgtgaaa	gttgcttcag	atgaatatag	7560
gtagtagaac	ggcagaacta	gtattcaaag	ccaggctctga	tgaatccaaa	aacaaacacc	7620
cattactccc	attttctggg	acatacttac	tctaccacga	tgtctggggc	tttgtaatgc	7680
ctatgtaa	aacatagttt	tatgtttggg	tatttttcta	tgtaatgtct	acttatatat	7740
ctgtatctat	ctcttgcttt	gtttccaaag	gtaaactatg	tgtctaaatg	tgggcaaaaa	7800
ataacacact	attccaaatt	actgttcaaa	ttcctttaag	tcagtataaa	ttatttggtt	7860
tgacattaat	catgaagttc	cctgtgggta	ctaggtaa	ctttaataga	atgttaatgt	7920
ttgtattcat	tataagaatt	tttggtctgt	acttatttac	aacaatattt	cactctaatt	7980
agacattttac	taaactttct	cttgaaaaca	atgccccaaa	aagaacatta	gaagacacgt	8040
aagctcagtt	ggtctctgcc	actaagacca	gccaacagaa	gcttgatttt	attcaaactt	8100
tgcatttttar	catattttat	cttgga	tcaattgtgt	tgggtttttg	tttttggttg	8160
tattgaatag	actctcagaa	atccaattgt	tgagtaa	ttctgggttt	tctaaccctt	8220
ctttagatgt	taccctgtgt	gaggaggcat	tcttcagggt	tgtctgtcct	acaaagttta	8280
cgcctaactg	gcttagtgtc	ttggtagaca	atttgcctgg	caccaaagta	aaygcagaga	8340
gtgtagagag	gatraaacgg	caacacagct	cacaagaaca	gactttccag	ctgctgaagt	8400
trtggaacaa	tcaaaacaaa	gaccaagata	tagtcaagaa	gatcatccaa	ggtatgatma	8460
tctaaaataa	aaagatcaat	cagaaatcaa	agacacctat	ttatcataaa	ccaggaacaa	8520
gactgcatgt	atgttttagtt	gtgtggatct	tgtttccctg	ttggaatcat	tgttggactg	8580
aaaaagtttc	cacctgataa	tgtagatgtg	attccacaaa	cagttataca	aggttttgtt	8640
ctcaccctctg	ctccccagtt	tctttgtaaa	gtatgttgaa	cactctaaga	gaagagaaat	8700
gcatttgaag	gcagggtctg	atctcaggga	gtcgttcca	gatcccttaa	cgcttctgta	8760
agcagccctt	ctagaccacc	aaggagaagc	tctataacca	ctttgtatct	tacattgcac	8820
ctctaccaag	aagctctgtt	gtattttact	ggtaattctc	tccaggtagg	cttttcgtag	8880
cttacaaata	tgttcttatt	aatcctcatg	atatggcctg	cattaaaatt	attttaatgg	8940
catatgttat	gagaattaat	gagataaaat	ctgaaaagtg	tttgagcctc	ttgtaggaaa	9000
aagctagtta	cagcaaaatg	ttctcacatc	ttataagttt	atataaagat	tctccttttag	9060
aaatgggtgtg	agagagaaac	agagagagat	aggagagaaa	gtgtgaaaga	atctgaagaa	9120
aaggagtttc	atccagtggtg	gactgtaagc	tttacgacac	atgatggaaa	gagttctgac	9180
ttcagtaagc	attgggagga	catgctagaa	gaaaaaggaa	gaagagtttc	cataatgcag	9240
acagggtcag	tgagaaatcc	attcagggtcc	tcaccagtag	ttaaatgact	gtatagtctt	9300
gcactaccct	aaaaaacttc	aagtatctga	aaccggggca	acagatttta	ggagaccaac	9360

gtctttgaga	gctgattgct	tttgcttatg	caaagagtaa	acttttatgt	tttgagcaaa	9420
ccaaaagtat	tctttgaacg	tataattagc	cctgaagccg	aaagaaaaga	gaaaatcaga	9480
gaccgttaga	attggaagca	accaaattcc	ctattttata	aatgaggaca	ttttaaccca	9540
gaaagatgaa	ccgatttggc	ttagggctca	cagatactaa	gtgactcatg	tcattaatag	9600
aaatgttagt	tcctccctct	taggtttgta	ccctagctta	ttactgaaat	attctctagg	9660
ctgtgtgtct	ccttttagttc	ctcgacctca	tgtctttgag	ttttcagata	tcctccctcat	9720
ggaggtagtc	ctctgggtgct	atgtgtattc	tttaaaggct	agttacggca	attaacttat	9780
caactagcgc	ctactaatga	aactttgtat	tacaaagtag	ctaacttgaa	tactttcctt	9840
tttttctgaa	atgttatggg	ggtaatttct	caaacttttt	cttagaaaac	tgagagtgat	9900
gtgtcttatt	ttctactggt	aattttcaaa	attaggagct	tcttccaaag	ttttgttgga	9960
tgccaaaaat	atatagcata	ttatcttatt	ataacaaaaa	atatttatct	cagttcttag	10020
aaataaatgg	tgtcacttaa	ctccctctca	aaagaaaagg	ttatcattga	aatataatta	10080
tgaaattctg	caagaacctt	ttgcctcacg	cttggtttat	gatggcattg	gatgaatata	10140
aatgatgtga	acacttatct	gggcttttgc	tttatgcaga	tattgacctc	tgtgaaaaca	10200
gcrtgcagcg	gcacattgga	catgctaacc	tcaccttcga	gcagcttcgt	agcttgatgg	10260
aaagcttacc	gggaaagaaa	gtggggagcag	aagacattga	aaaaacaata	aaggcatgca	10320
aacccagtga	ccagatcctg	aagctgctca	gtttgtggcg	aataaaaaat	ggcgaccaag	10380
acaccttgaa	gggcctaattg	cacgcactaa	agcactcaaa	gacgtaccac	tttcccaaaa	10440
ctgtcactca	gagtctaaag	aagaccatca	ggttccttca	cagcttcaca	atgtacaaat	10500
tgtatcagaa	gytattttta	gaaatgatag	gtaaccaggt	ccaatcagta	aaaataagct	10560
gcttataact	ggaaatggcc	attgagctgt	ttcctcacia	ttggcgagat	cccatggatg	10620
agtaaactgt	ttctcaggca	cttgaggctt	tcagtgatat	ctttctcatt	accagtgact	10680
aattttgcca	cagggtacta	aaagaaacta	tgatgtggag	aaaggactaa	catctcctcc	10740
aataaacccc	aaatgggttaa	tccaactgtc	agatctggat	cgttatctac	tgactatatt	10800
ttcccttatt	actgcttgca	gtaattcaac	tggaaattaa	aaaaaaaaaa	ctagactcca	10860
ctgggcctta	ctaaatatgg	gaatgtctaa	cttaaatagc	tttgggattc	cagctatgct	10920
agaggctttt	attagaaagc	catatttttt	tctgtaaaaag	ttactaatat	atctgtaaca	10980
ctattacagt	attgctattt	atattcattc	agatataaga	tttgacata	ttatcatcct	11040
ataaagaaac	ggtatgactt	aatttttagaa	agaaaattat	attctgttta	ttatgacaaa	11100
tgaaagagaa	aatatatatt	tttaatggaa	agtttgtagc	atttttctaa	taggtactgc	11160
catatttttc	tgtgtggagt	atttttataa	ttttatctgt	ataagctgta	atatcatttt	11220
atagaaaatg	cattatttag	tcaattgttt	aatgttgga	aacatatgaa	atataaatta	11280
tctgaatatt	agatgctctg	agaaattgaa	tgtaccttat	ttaaaagatt	ttatgggttt	11340
ataactatat	aaatgacatt	attaaagttt	tcaaattatt	ttttattgct	ttctctgttg	11400
cttttatt						11408

<210> 2
 <211> 1206
 <212> DNA
 <213> Homo sapiens

<400> 2						
atgaacaagt	tgtgtgtgctg	cgcgctcgtg	tttctggaca	tctccattaa	gtggaccacc	60
caggaaacgt	ttcctccaaa	gtaccttcat	tatgacgaag	aaacctctca	tcagctgttg	120
tgtgacaaat	gtcctcctgg	tacctaccta	aaacaacact	gtacagcaaa	gtggaagacc	180
gtgtgcgccc	cttgccctga	ccactactac	acagacagct	ggcacaccag	tgacgagtgt	240
ctatactgca	gccccgtgtg	caaggagctg	cagtacgtca	agcaggagtg	caatcgcacc	300
cacaaccgcg	tgtgcgaatg	caaggaaggg	cgctaccttg	agatagagtt	ctgcttgaaa	360
cataggagct	gccctcctgg	atttgaggatg	gtgcaagctg	gaaccccaga	gcgaaataca	420
gtttgcaaaa	gatgtccaga	tgggttcttc	tcaaattgaga	cgatcatctaa	agcaccctgt	480
agaaaacaca	caaattgcag	tgtctttggg	ctcctgctaa	ctcagaaaagg	aaatgcaaca	540
cacgacaaca	tatgttccgg	aaacagtga	tcaactcaaa	aatgtggaat	agatgttacc	600
ctgtgtgagg	aggcattctt	caggtttget	gttcctacaa	agttttacgc	taactggctt	660
agtgtcttgg	tagacaattt	gcctggcacc	aaagtaaacg	cagagagtgt	agagaggata	720
aaacggcaac	acagctcaca	agaacagact	ttccagctgc	tgaagttatg	gaaacatcaa	780
aacaaagacc	aagatatagt	caagaagatc	atccaagata	ttgacctctg	tgaaaacagc	840

gtgcagcggc acattggaca tgctaacctc accttcgagc agcttcgtag cttgatggaa 900
agcttaccgg gaaagaaagt gggagcagaa gacattgaaa aaacaataaa ggcattgcaaa 960
cccagtgacc agatcctgaa gctgctcagt ttgtggcgaa taaaaaatgg cgaccaagac 1020
accttgaagg gcctaatagca cgcactaaag cactcaaaga cgtaccactt tccccaaaact 1080
gtcactcaga gtctaaagaa gaccatcagg ttccttcaca gcttcacaat gtacaaattg 1140
tatcagaagt tattttttaga aatgataggt aaccagggtcc aatcagtaaa aataagctgc 1200
ttataa 1206

<210> 3
<211> 401
<212> PRT
<213> Homo sapiens

<400> 3

Met Asn Lys Leu Leu Cys Cys Ala Leu Val Phe Leu Asp Ile Ser Ile
1 5 10 15
Lys Trp Thr Thr Gln Glu Thr Phe Pro Pro Lys Tyr Leu His Tyr Asp
20 25 30
Glu Glu Thr Ser His Gln Leu Leu Cys Asp Lys Cys Pro Pro Gly Thr
35 40 45
Tyr Leu Lys Gln His Cys Thr Ala Lys Trp Lys Thr Val Cys Ala Pro
50 55 60
Cys Pro Asp His Tyr Tyr Thr Asp Ser Trp His Thr Ser Asp Glu Cys
65 70 75 80
Leu Tyr Cys Ser Pro Val Cys Lys Glu Leu Gln Tyr Val Lys Gln Glu
85 90 95
Cys Asn Arg Thr His Asn Arg Val Cys Glu Cys Lys Glu Gly Arg Tyr
100 105 110
Leu Glu Ile Glu Phe Cys Leu Lys His Arg Ser Cys Pro Pro Gly Phe
115 120 125
Gly Val Val Gln Ala Gly Thr Pro Glu Arg Asn Thr Val Cys Lys Arg
130 135 140
Cys Pro Asp Gly Phe Phe Ser Asn Glu Thr Ser Ser Lys Ala Pro Cys
145 150 155 160
Arg Lys His Thr Asn Cys Ser Val Phe Gly Leu Leu Leu Thr Gln Lys
165 170 175
Gly Asn Ala Thr His Asp Asn Ile Cys Ser Gly Asn Ser Glu Ser Thr
180 185 190
Gln Lys Cys Gly Ile Asp Val Thr Leu Cys Glu Glu Ala Phe Phe Arg
195 200 205
Phe Ala Val Pro Thr Lys Phe Thr Pro Asn Trp Leu Ser Val Leu Val
210 215 220
Asp Asn Leu Pro Gly Thr Lys Val Asn Ala Glu Ser Val Glu Arg Ile
225 230 235 240
Lys Arg Gln His Ser Ser Gln Glu Gln Thr Phe Gln Leu Leu Lys Leu
245 250 255
Trp Lys His Gln Asn Lys Asp Gln Asp Ile Val Lys Lys Ile Ile Gln
260 265 270
Asp Ile Asp Leu Cys Glu Asn Ser Val Gln Arg His Ile Gly His Ala
275 280 285
Asn Leu Thr Phe Glu Gln Leu Arg Ser Leu Met Glu Ser Leu Pro Gly
290 295 300
Lys Lys Val Gly Ala Glu Asp Ile Glu Lys Thr Ile Lys Ala Cys Lys
305 310 315 320
Pro Ser Asp Gln Ile Leu Lys Leu Leu Ser Leu Trp Arg Ile Lys Asn

				325					330					335					
Gly	Asp	Gln	Asp	Thr	Leu	Lys	Gly	Leu	Met	His	Ala	Leu	Lys	His	Ser				
			340					345					350						
Lys	Thr	Tyr	His	Phe	Pro	Lys	Thr	Val	Thr	Gln	Ser	Leu	Lys	Lys	Thr				
		355					360					365							
Ile	Arg	Phe	Leu	His	Ser	Phe	Thr	Met	Tyr	Lys	Leu	Tyr	Gln	Lys	Leu				
	370					375					380								
Phe	Leu	Glu	Met	Ile	Gly	Asn	Gln	Val	Gln	Ser	Val	Lys	Ile	Ser	Cys				
385					390					395					400				

Leu

<210> 4
 <211> 15
 <212> DNA
 <213> Homo sapiens

<400> 4
 gatcttgkct ggatc 15

<210> 5
 <211> 15
 <212> DNA
 <213> Homo sapiens

<400> 5
 ccaccgcycc acccc 15

<210> 6
 <211> 15
 <212> DNA
 <213> Homo sapiens

<400> 6
 tccctggkkgg atcct 15

<210> 7
 <211> 15
 <212> DNA
 <213> Homo sapiens

<400> 7
 gcgttaaycc tggag 15

<210> 8
 <211> 15
 <212> DNA
 <213> Homo sapiens

<400> 8
 cctgggcyag ccgac 15

<210> 9
 <211> 15
 <212> DNA
 <213> Homo sapiens

<400> 9
gggagaargc tccac

15

<210> 10
<211> 15
<212> DNA
<213> Homo sapiens

<400> 10
ccttttamgc tgcaa

15

<210> 11
<211> 15
<212> DNA
<213> Homo sapiens

<400> 11
gctgggtaygt gtcaa

15

<210> 12
<211> 15
<212> DNA
<213> Homo sapiens

<400> 12
aggaccaytg ctcaag

15

<210> 13
<211> 15
<212> DNA
<213> Homo sapiens

<400> 13
aacataayag tagca

15

<210> 14
<211> 15
<212> DNA
<213> Homo sapiens

<400> 14
tatttttcygt aggaa

15

<210> 15
<211> 15
<212> DNA
<213> Homo sapiens

<400> 15
cattttarca tattt

15

<210> 16
<211> 15
<212> DNA
<213> Homo sapiens

<400> 16
aagtaaaygc agaga

15

<210> 17
<211> 15
<212> DNA
<213> Homo sapiens

<400> 17
agaggatraa acggc

15

<210> 18
<211> 15
<212> DNA
<213> Homo sapiens

<400> 18
tgaagttrtg gaaac

15

<210> 19
<211> 15
<212> DNA
<213> Homo sapiens

<400> 19
gtatgatmat ctaaa

15

<210> 20
<211> 15
<212> DNA
<213> Homo sapiens

<400> 20
aaacagcrtg cagcg

15

<210> 21
<211> 15
<212> DNA
<213> Homo sapiens

<400> 21
tcagaagyta ttttt

15

<210> 22
<211> 15
<212> DNA
<213> Homo Sapiens

<400> 22
cgtccgatc ttgkc

15

<210> 23
<211> 15
<212> DNA
<213> Homo sapiens

<400> 23
gagtccgatc cagmc

15

<210> 24
<211> 15
<212> DNA
<213> Homo Sapiens

<400> 24
cagacaccac cgcyc

15

<210> 25
<211> 15
<212> DNA
<213> Homo sapiens

<400> 25
gcgtgagggg tggrg

15

<210> 26
<211> 15
<212> DNA
<213> Homo Sapiens

<400> 26
cccacctccc tggkg

15

<210> 27
<211> 15
<212> DNA
<213> Homo sapiens

<400> 27
gcggaaagga tccmc

15

<210> 28
<211> 15
<212> DNA
<213> Homo Sapiens

<400> 28
ctgaaagcgt taayc

15

<210> 29
<211> 15
<212> DNA
<213> Homo sapiens

<400> 29
agaaagctcc aggrt

15

<210> 30
<211> 15
<212> DNA
<213> Homo Sapiens

bioRxiv preprint doi: <https://doi.org/10.1101/000000>; this version posted March 1, 2014. The copyright holder for this preprint (which was not certified by peer review) is the author/funder, who has granted bioRxiv a license to display the preprint in perpetuity. It is made available under aCC-BY-NC-ND 4.0 International license.

<400> 30	15
taagtccttg ggcyg	
<210> 31	
<211> 15	
<212> DNA	
<213> Homo sapiens	
<400> 31	15
gcacccgtcg gctrg	
<210> 32	
<211> 15	
<212> DNA	
<213> Homo Sapiens	
<400> 32	15
ccggcgggga gaarg	
<210> 33	
<211> 15	
<212> DNA	
<213> Homo sapiens	
<400> 33	15
gagcgagtgg agcyt	
<210> 34	
<211> 15	
<212> DNA	
<213> Homo Sapiens	
<400> 34	15
gggtgtcctt ttamg	
<210> 35	
<211> 15	
<212> DNA	
<213> Homo sapiens	
<400> 35	15
ggaactttgc agckt	
<210> 36	
<211> 15	
<212> DNA	
<213> Homo Sapiens	
<400> 36	15
gtgcaagctg gtayg	
<210> 37	
<211> 15	
<212> DNA	
<213> Homo sapiens	

<400> 37
tgcacattga_cacrt

15

<210> 38
<211> 15
<212> DNA
<213> Homo Sapiens

<400> 38
ttccaaagga ccayt

15

<210> 39
<211> 15
<212> DNA
<213> Homo sapiens

<400> 39
attcctctga gcart

15

<210> 40
<211> 15
<212> DNA
<213> Homo Sapiens

<400> 40
ttgtgcaaca taaya

15

<210> 41
<211> 15
<212> DNA
<213> Homo sapiens

<400> 41
ttttactgct actrt

15

<210> 42
<211> 15
<212> DNA
<213> Homo Sapiens

<400> 42
gcttggtatt ttcyg

15

<210> 43
<211> 15
<212> DNA
<213> Homo sapiens

<400> 43
ctggggttcc tacrg

15

<210> 44
<211> 15
<212> DNA
<213> Homo Sapiens

<400> 44

<210> 59
<211> 10
<212> DNA
<213> Homo sapiens

<400> 59
tccgatccag 10

<210> 60
<211> 10
<212> DNA
<213> Homo sapiens

<400> 60
acaccaccgc 10

<210> 61
<211> 10
<212> DNA
<213> Homo sapiens

<400> 61
tgaggggtgg 10

<210> 62
<211> 10
<212> DNA
<213> Homo sapiens

<400> 62
acctccctgg 10

<210> 63
<211> 10
<212> DNA
<213> Homo sapiens

<400> 63
gaaaggatcc 10

<210> 64
<211> 10
<212> DNA
<213> Homo sapiens

<400> 64
aaagcgtaa 10

<210> 65
<211> 10
<212> DNA
<213> Homo sapiens

<400> 65
aagctccagg 10

<210> 66
<211> 10
<212> DNA
<213> Homo sapiens

<400> 66
gtccctgggc 10

<210> 67
<211> 10
<212> DNA
<213> Homo sapiens

<400> 67
cccgtcggct 10

<210> 68
<211> 10
<212> DNA
<213> Homo sapiens

<400> 68
gcggggagaa 10

<210> 69
<211> 10
<212> DNA
<213> Homo sapiens

<400> 69
cgagtggagc 10

<210> 70
<211> 10
<212> DNA
<213> Homo sapiens

<400> 70
tgtcctttta 10

<210> 71
<211> 10
<212> DNA
<213> Homo sapiens

<400> 71
actttgcagc 10

<210> 72
<211> 10
<212> DNA
<213> Homo sapiens

<400> 72
caagctggta 10

<210> 73

20200404

<211> 10
<212> DNA
<213> Homo sapiens

<400> 73
acattgacac 10

<210> 74
<211> 10
<212> DNA
<213> Homo sapiens

<400> 74
caaaggacca 10

<210> 75
<211> 10
<212> DNA
<213> Homo sapiens

<400> 75
cctctgagca 10

<210> 76
<211> 10
<212> DNA
<213> Homo sapiens

<400> 76
tgcaacataa 10

<210> 77
<211> 10
<212> DNA
<213> Homo sapiens

<400> 77
tactgctact 10

<210> 78
<211> 10
<212> DNA
<213> Homo sapiens

<400> 78
tggtattttc 10

<210> 79
<211> 10
<212> DNA
<213> Homo sapiens

<400> 79
gggttcctac 10

<210> 80
<211> 10

<212> DNA
<213> Homo sapiens

<400> 80
ttgcatttta 10

<210> 81
<211> 10
<212> DNA
<213> Homo sapiens

<400> 81
ataaaatatg 10

<210> 82
<211> 10
<212> DNA
<213> Homo sapiens

<400> 82
ccaaagtaaa 10

<210> 83
<211> 10
<212> DNA
<213> Homo sapiens

<400> 83
cactctctgc 10

<210> 84
<211> 10
<212> DNA
<213> Homo sapiens

<400> 84
tagagaggat 10

<210> 85
<211> 10
<212> DNA
<213> Homo sapiens

<400> 85
gttgccgttt 10

<210> 86
<211> 10
<212> DNA
<213> Homo sapiens

<400> 86
tgctgaagtt 10

<210> 87
<211> 10
<212> DNA

<210> 94
<211> 2280
<212> DNA
<213> Homo sapiens

<220>
<221> allele
<222> (30)..(30)
<223> PS1: polymorphic base G or T

<220>
<221> misc_feature
<222> (61)..(120)
<223> n's represent sequence between PS1and PS2

<220>
<221> allele
<222> (150)..(150)
<223> PS2: polymorphic base C or T

<220>
<221> misc_feature
<222> (181)..(240)
<223> n's represent sequence between PS2 and PS3

<220>
<221> allele
<222> (270)..(270)
<223> PS3: polymorphic base G or T

<220>
<221> misc_feature
<222> (301)..(360)
<223> n's represent sequence between PS3 and PS4

<220>
<221> allele
<222> (390)..(390)
<223> PS4: polymorphic base T or C

<220>
<221> misc_feature
<222> (421)..(480)
<223> n's represent sequence between PS4 and PS5

<220>
<221> allele

<222> (510)..(510)
<223> PS5: polymorphic base G or C

<220>
<221> misc_feature
<222> (541)..(600)
<223> n's represent sequence between PS5 and PS6

<220>
<221> allele
<222> (630)..(630)
<223> PS6: polymorphic base C or T

<220>
<221> misc_feature
<222> (661)..(720)
<223> n's represent sequence between PS6 and PS7

<220>
<221> allele
<222> (750)..(750)
<223> PS7: polymorphic base G or A

<220>
<221> misc_feature
<222> (781)..(840)
<223> n's represent sequence between PS7 and PS8

<220>
<221> allele
<222> (870)..(870)
<223> PS8: polymorphic base C or A

<220>
<221> misc_feature
<222> (901)..(960)
<223> n's represent sequence between PS8 and PS9

<220>
<221> allele
<222> (990)..(990)
<223> PS9: polymorphic base C or T

<220>
<221> misc_feature
<222> (1021)..(1080)
<223> n's represent sequence between PS9 and PS10

<220>
<221> allele
<222> (1110)..(1110)
<223> PS10: polymorphic base T or C

<220>
<221> misc_feature
<222> (1141)..(1200)
<223> n's represent sequence between PS10 and PS11

<220>
<221> allele
<222> (1230)..(1230)
<223> PS11: polymorphic base T or C

<220>
<221> misc_feature
<222> (1261)..(1320)
<223> n's represent sequence between PS11 and PS12

<220>
<221> allele
<222> (1350)..(1350)
<223> PS12: polymorphic base C or T

<220>
<221> misc_feature
<222> (1381)..(1440)
<223> n's represent sequence between PS12 and PS13

<220>
<221> allele
<222> (1470)..(1470)
<223> PS13: polymorphic base G or A

<220>
<221> misc_feature
<222> (1501)..(1560)
<223> n's represent sequence between PS13 and PS14

<220>
<221> allele
<222> (1590)..(1590)
<223> PS14: polymorphic base C or T

<220>
<221> misc_feature

<222> (1621)..(1680)
 <223> 's represent sequence between PS14 and PS15

 <220>
 <221> allele
 <222> (1710)..(1710)
 <223> PS15: polymorphic base A or G

 <220>
 <221> misc_feature
 <222> (1741)..(1800)
 <223> n's represent sequence between PS15 and PS16

 <220>
 <221> allele
 <222> (1830)..(1830)
 <223> PS16: polymorphic base A or G

 <220>
 <221> misc_feature
 <222> (1861)..(1920)
 <223> n's represent sequence between PS16 and PS17

 <220>
 <221> allele
 <222> (1950)..(1950)
 <223> PS17: polymorphic base A or C

 <220>
 <221> misc_feature
 <222> (1981)..(2040)
 <223> n's represent sequence between PS17 and PS18

 <220>
 <221> allele
 <222> (2070)..(2070)
 <223> PS18: polymorphic base G or A

 <220>
 <221> misc_feature
 <222> (2101)..(2160)
 <223> n's represent sequence between PS18and PS19

 <220>
 <221> allele
 <222> (2190)..(2190)
 <223> PS19: polymorphic base T or C

 <220>
 <221> misc_feature
 <222> (2221)..(2280)
 <223> n's represent sequence 3' to PS19

 <400> 94

ggacacactc	caactgcgtc	cggatcttgk	ctggatcgga	ctctcaggg	ggaggagaca	60
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	120
ctgctctccc	aggggacaga	caccaccgcy	ccaccctca	cgcacccct	ccctggggga	180
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	240
gccccacccc	tcacgcccc	cctccctggk	ggatcctttc	cgcacccagcc	ctgaaagcgt	300
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	360
cctttccgcc	ccagccctga	aagcgttaay	cctggagcct	tctgcacacc	ccccgaccgc	420
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	480
ctgaggtttc	cggggaccac	aatgaacaas	ttgctgtget	gcgcgctcgt	ggtaagtccc	540
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	600
tgctgcgcgc	tcgtggtaag	tccttgggcy	agccgacggg	tgcccggcgc	ctggggaggc	660
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	720
ccaacctccc	agcggaccgg	cggggagaar	gctccactcg	ctccctccca	ggagaggcct	780
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	840
tgccatgctt	cccctagggt	gtccttttam	gctgcaaagt	tcctgctgac	tttatggaag	900
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	960
tcctggattt	ggagtgggtc	aagctgggay	gtgtcaatgt	gcagcaaat	taattaggat	1020
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	1080
tatgtgtctg	gagtgcctcc	aaaggaccay	tgctcagagg	aatactttgc	cactacaggg	1140
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	1200
tgaaaatgct	agagttttgt	gcaacataay	agtagcagta	aaaaccaagt	gaaaagtctt	1260
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	1320
gagaaggtac	taaattgctt	ggtattttcy	gtaggaaccc	cagagcgaaa	tacagtttgc	1380
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	1440
gcttgatttt	attcaaactt	tgcattttar	catattttat	cttggaatat	tcaattgtgt	1500
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	1560
gtagacaatt	tgcttggcac	caaagtaaay	gcagagagtg	tagagaggat	aaaacggcaa	1620
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	1680
aaagtaaacg	cagagagtgt	agagaggatr	aaacggcaac	acagctcaca	agaacagact	1740
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	1800
caagaacaga	ctttccagct	gctgaagttr	tggaacatc	aaaacaaaga	ccaagatata	1860
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	1920
atagtcaaga	agatcatcca	aggtatgatm	atctaaaata	aaaagatcaa	tcagaaatca	1980
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	2040
atgcagatat	tgacctctgt	gaaaacager	tgacgcggca	cattggacat	gctaacctca	2100
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	2160
gcttcacaat	gtacaaattg	tatcagaagy	tattttttaga	aatgataggt	aaccagggtcc	2220
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	2280